Novel Biomarkers for Detection of Early Onset Neonatal Sepsis

**OCR Number:** OCR 5151

**Description:**

- Infection-induced preterm birth significantly raises the risk of the newborn developing early onset neonatal sepsis (EONS) and represents a significant contributor to morbidity and mortality worldwide.
- Premature newborns represent about 11% of the approximately 4 million live births in the US annually and are most susceptible to developing EONS.
- The standard of care is empiric anti-infection therapy based upon minimal symptomatic suspicions, but this poses undue risks to the newborn.
- Using proteomic analyses, Yale researchers have identified biomarkers in cord blood samples that correlate with the development of EONS.
- OCR5151 is a simple, quick and accurate test for the assessment of EONS that permits earlier treatment of those newborns at higher risk, but also avoids unnecessary treatment of newborns at no risk.
- This diagnostic test can be easily incorporated into routine newborn testing, as cord blood sampling is used to monitor cord blood gases at delivery.

**Stage of Development:** Biomarkers have been identified from clinical samples that correlate with development of EONS. Assay development and optimization work has been initiated.

**Published/Issued Patents:**

- U.S. Patent No. 8,697,367

**Publications:**


**PI:** Irina Buhimschi

**Licensing Contact:** Christopher Unsworth
christopher.unsworth@yale.edu